

What is claimed:

- 5
1. A coating composition comprising
- (a) non-ionic latex polymer;
- (b) porous inorganic oxide having a pore volume in the range of 0.6 to 3.0 cc/g wherein the inorganic oxide further possesses a cationic charge; and
- (c) water soluble polymer
- 10 wherein the coating composition has a solids content of at least 20% by weight and has a Brookfield viscosity of 5000 centipose or less.
2. A composition of claim 1 wherein (a) is polyvinyl acetate.
- 15 3. A composition of claim 2 wherein (a) is polyvinyl acetate homopolymer.
4. A composition of claim 2 wherein the polyvinyl acetate has a core and shell, further wherein the shell comprises polyvinyl alcohol.
- 20 5. A composition of claim 1 wherein the porous inorganic oxide is silica.
6. A composition of claim 5 wherein the silica has a pore volume in the range of 0.9 to 2.5 cc/g.
- 25 7. A composition of claim 5 wherein the silica has a coating comprising alumina.

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8. A composition of claim 1 wherein the water soluble polymer is a member of the group consisting of polyvinyl alcohol, hydroxyethyl cellulose, methyl cellulose, dextrin, pluron, gelatin, starch, gum arabic, dextran, polyethylene glycol, polyvinyl pyrrolidone, polyacrylamide, polypropylene glycol and mixtures thereof.

9. A composition of claim 4 wherein the water soluble polymer is polyvinyl alcohol.

10. A composition of claim 1 further comprising (d) a water soluble cationic polymer.

11. A composition of claim 10 wherein (d) comprises quaternary ammonium.

12. A composition of claim 11 wherein (d) is a polydiallyl dimethyl ammonium chloride.

13. A composition of claim 1 wherein the solids content of the composition is in the range of about 25 to about 40% by weight.

14. A recording medium comprising a substrate and coating thereon wherein the coating comprises

- (a) non-ionic latex polymer;
- (b) porous inorganic oxide having a pore volume in the range of 0.6 to 3.0 cc/g and possessing a cationic charge; and
- (c) water soluble polymer.

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15. A recording medium of claim 14 wherein (a) is polyvinyl acetate.

5 16. A recording medium of claim 15 wherein (a) is polyvinyl acetate homopolymer.

17. A recording medium of claim 14 wherein the porous inorganic oxide is silica.

10 18. A recording medium of claim 14 wherein the silica has a pore volume in the range of 0.9 to 2.5 cc/g.

15 19. A recording medium of claim 17 wherein the silica has a coating of alumina.

20 20. A recording medium of claim 14 wherein the water soluble polymer is a member of the group consisting of polyvinyl alcohol, hydroxyethyl cellulose, methyl cellulose, dextrin, pluran, gelatin, starch, gum arabic, dextran, polyethylene glycol, polyvinyl pyrrolidone, polyacrylamide, polypropylene glycol and mixtures thereof.

21. A recording medium of claim 14 further comprising (d) a water soluble cationic polymer.

25 22. A recording medium of claim 14 wherein the coating is present on the substrate in the range of 5 to 10 g/m<sup>2</sup>.

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23. A high solids coating composition comprising

- (a) polyvinyl alcohol;  
(b) nonionic latex; and  
(c) surface-modified inorganic oxide

wherein the coating has a total volume fraction in the range of 0.25 to

0.50.

24. A coating according to claim 23 wherein the solids content is greater than 23% by weight.

25. A coating composition according to claim 23 further comprising dye mordant.

26. A coating composition according to claim 25 wherein the dye mordant is cationic polymer.

27. A coating composition according to claim 23 wherein the weight ratio of (b) to (a) is in the range of 0.2 to 5.0.

28. A coating composition according to claim 23 wherein the coating composition has a Brookfield viscosity of less than 2000 centipose.

29. A coating composition according to claim 23 wherein (b) comprises polyvinylacetate.

30. A coating composition according to claim 23 wherein the inorganic oxide is silica which has been modified by alumina.

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